Claims

1. Magnetic heating device comprising energy feeding means, control means and at least two magnetic field generators (1,2), where each magnetic field generator comprises two free ends (6), all free ends of the magnetic field generators define a plane and the control means is adapted to control the feeding means to apply magnetic field generating energy to the magnetic field generators to generate alternating magnetic fields, characterized in that said magnetic fields being such that the magnetic field through one of said free ends has an opposed direction as compared to the magnetic fields through the other free ends, wherein a ferromagnetic material positioned in a space defined above said plane is heated.

2. Magnetic heating device comprising energy feeding means, control means and at least two magnetic field generators (1,2), where each magnetic field generator comprises two free ends (6), all free ends of the magnetic field generators define a plane and that the control means is adapted to control the feeding means to apply magnetic field generating energy to the magnetic field generators to generate alternating magnetic fields in a heating means (4,5) arranged in a space defined above said plane, characterized in that said magnetic fields being such that the magnetic field through one of said free ends has an opposed direction as compared to the magnetic fields through the other free ends.

3. Device according to claim 1 or 2, characterized in that two magnetic field generators constitute a magnetic module.

4. Device according to claim 3, characterized in that said magnetic field generator comprises a magnetic core having said two free ends and is provided with one or many magnetic coils to which said magnetic field generating energy is applied.

5. Device according to claim 3, characterized in that said magnetic core is U-shaped and has two legs and a joining part, wherein one magnetic coil is arranged on each of the legs.

6. Device according to claim 3, characterized in that said magnetic core is divided in two separate rod-shaped legs, wherein at least one magnetic coil is arranged on each of the legs.

7. Device according to claim 5 or 6, characterized in that the legs for all magnetic field generators in the magnetic module are parallel.

8. Device according to claim 5 or 6, characterized in that said applied magnetic field generating energy is an alternating electrical power having a predetermined frequency, wherein the electrical power is applied with a reversed polarity to one of the magnetic coils compared to the electrical power applied to the other three coils of the module.

9. Device according to claim 5 or 6, characterized in that said applied magnetic field generating energy is an alternating electrical power having a predetermined frequency, wherein the electrical power is applied with a reversed polarity to two of the magnetic coils compared to the electrical power applied to the other two coils of the module.

10. Device according to claim 9, characterized in that said predetermined frequency is in the range of 50-60 Hz.

11. Device according to claim 3, characterized in that said predetermined number of magnetic modules is 3xN, where N = 1, 2, 3 or 4.

12. Device according to claim 3, characterized in that said predetermined number of magnetic modules is in the range of 1-1000.

13. Device according to claim 1 or 2, characterized in that said device comprises at least one temperature sensor (7) arranged close to said plane, wherein said sensor generates temperature signals that are applied to said control means and used to control the heating of the device.

14. Device according to claim 2, characterized in that said heating means comprises two sheets, a lower sheet facing the free ends of the

magnetic field generators and an upper sheet on the opposite side.

15. Device according to claim 14, characterized in that said lower sheet is a 2 mm sheet of aluminium and the upper sheet is a 4 mm sheet of iron.

16. Device according to claim 14, characterized in that said two sheets are floating with respect to each other, i.e. they are not fastened (fixed) to each other.

17. Device according to claim 14, characterized in that said upper sheet is made of a ferromagnetic material and the lower sheet is made from a paramagnetic material.

18. Device according to any preceding claim, characterized in that the free ends in said defined plane are in the same level.

19. Device according to any preceding claim, characterized in that said defined plane is curved.